

10/507123

Amended claims in response the written opinion

of 15.10.2003

DT09 Rec'd PCT/PTO 10 SEP 2004

1. Acoustic construction element comprising sound
5 insulating cavities (3) having a constant shape
along an axis parallel to the exposed surface of the
construction element (1), at least part of said
cavities (3) being first cavities (3.1.a - 3.9.a)
10 comprising a first portion, situated closest to the
external surface of the element (1), having a
smaller width than the maximum width of a second,
internal portion of the cavity (3.1.a - 3.9.a), and
at least part of said cavities (3) being second
15 cavities having a substantially constant width over
their entire depth, characterised in that
at least part of said first cavities (3.1.a - 3.9.a)
and at least part of said second cavities have
different depths;
at least part of said first cavities (3.1.a - 3.9.a)
20 have different internal volumes and/or different
internal shapes;
at least part of said first (3.1.a - 3.9.a) and/or
second cavities are completely or partially filled
with sound insulating material.
25
2. Acoustic construction element according to claim 1,
characterised in that at least part of the first
cavities (3.1.a - 3.9.a) have an angular shape.
- 30 3. Acoustic construction element according to claim 1,
characterised in that at least part of the first

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000 10.02.2004
cavities (3.1.a - 3.9.a) have a pseudo-angular shape.

4. Acoustic construction element according to any one of claims 1 to 3, characterised in that at least 90% of said first (3.1.a - 3.9.a) and/or second cavities are completely filled with sound insulating material.
5. Acoustic construction element according to any one of claims 1 to 3, characterised in that at least 90% of said first (3.1.a - 3.9.a) and/or second cavities are partially filled with sound insulating material.
6. Acoustic construction element according to any one of claims 1 to 5, characterised in that said said first (3.1.a - 3.9.a) and/or second cavities are completely or partially filled with a foamed mineral product.
7. Acoustic construction element according to any one of claims 1 to 5, characterised in that said said first (3.1.a - 3.9.a) and/or second cavities are completely or partially filled with foamed clay, glass or perlite.
8. Method for manufacturing acoustic construction elements according to any one of claims 1 to 7, characterised in that said elements (1) are manufactured in one step process, whereas the sound

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5 9. Method for manufacturing acoustic construction
elements according to any one of claims 1 to 7,
characterised in that said elements (1) are
manufactured in a two step process, whereas the
sound isolating material is introduced in the
10 cavities in a second process step.

10. Use of an acoustic construction element according to
any one of claims 1 to 8, characterised in that said
construction element (1) is used as a traffic load
15 carrying construction element.

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